FOOD FOR THE HUNGRY INTERNATIONAL

P.L. 480 TITLE II INSTITUTIONAL SUPPORT ASSISTANCE PROGRAM

"*IMPROVING FOOD SECURITY PROGRAMMING AND RESOURCE MANAGEMENT*"

MALI FOOD SECURITY NEEDS ASSESSMENT

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MALI FOOD SECURITY NEEDS ASSESSMENT STAGE 1: EXPLORATORY TRIP REPORT

Introduction

Food for the Hungry International (FHI) is an international NGO of Christian motivation with programs in approximately 25 countries around the world. FHI currently implements USAID Title II-funded food security programs in four countries—Bolivia, Ethiopia, Kenya and Mozambique. FHI's goals and strategy for using Title II food resources to address food security needs are to combine direct distribution with the use of monetization proceeds in one or more of the following four program areas—agricultural production and marketing, maternal-child health and nutrition, water and sanitation, and educational development. Although FHI does not currently implement programs in the West African Sahel, it implemented a food security program (non-Title II) in Chad between 1987 and 1993 and has had a strategic interest in the region for some time. In addition, we have developed a certain level of expertise in our Title II programs that could be put to use in a West African program. As a result of this strategic interest and perceived high level of food security needs in the Sahel, FHI proposed—in its ISA proposal—to conduct a needs assessment in Mali, Burkina Faso and Niger to determine the rationale for and feasibility of initiating Title II activities in one or more of those countries. Following the submission of the proposal, it was decided that we would not pursue program possibilities in Niger and that country was dropped from the list.

In proposing this assessment, we recognized that any attempt to assess and address food security needs in West Africa would only be successful to the degree that two or more cooperating sponsors collaborate together in the effort. As such, FHI proposed to conduct the above mentioned needs assessment within the framework of a larger CS effort. Specifically, FHI proposed to collaborate with CRS by 1) meeting with CRS West Africa food security staff and collectively seeking ways to design and conduct the FHI assessment in such a manner as to build upon and into CRS' West Africa Strategy, 2) agree together on a scope of work for the assessment, and 3) discuss potential collaborative efforts in an initiation of Title II activities in one or more of the countries that were assessed. Subsequent to the submission of FHI's ISA proposal, it was decided that OICI would also collaborate in this assessment under their mentoring agreement with CRS.

Following internal and external discussions with CRS, OICI and other PVOs who were familiar with West Africa, FHI's ISA team decided to break the assessment down into two stages. The first stage would be a short exploratory trip to Mali and Burkina conducted solely by FHI with the objective of gathering secondary data. The second stage would be a longer assessment conducted by FHI, CRS and possibly OICI with the

objective of gathering primary data in one or more rural regions of Mali and/or Burkina. This report deals solely with the first stage in Mali.

The FHI ISA team of Dave Evans and Tom Davis conducted an exploratory visit to Mali for six days in early June 1999. The trip was primarily designed to achieve two objectives: 1) to meet with as many knowledgeable people as possible in Mali in order to gauge PVO/NGO/GO perception and opinion of food security needs and opportunities in the country and 2) to gather as much secondary data as possible on food security in Mali. The focus of the exercise was to identify potential strategic opportunities for FHI in partnering with other PVOs/NGOs to improve food security in either regions or program areas that are currently **underserved**.

In that most of the people and data mentioned above were located in the capital city, the team chose to spend the entire six days in Bamako and its environs. In-depth interviews were conducted with representatives from the following organizations: USAID, FEWS, World Vision, Africare, Save the Children/US, *Bureau d'Assistance et de Developpement Social de la Association des Groupements des Eglises and Missions Protestants Evangeliques*, Gospel Mission Union, and the *Association Chretienne de Communications au Mali* (see Appendix A for the interview questions). In addition to those interviews, secondary data was gleaned from the National Statistics Bureau, USAID and FEWS. Finally, several interviews were conducted with USAID/FFP and US-based PVOs either prior to or shortly after the exploratory visit.

The interviews conducted and data gathered focused on all three aspects of USAID's definition of food security—availability, access and utilization. Each of these areas is discussed below in detail.

Administrative Map of Mali

Food Availability Needs

On a national level, Mali has had three good years of agricultural production in a row. The cereal harvest in 1997/98 was very large and the country exported large volumes of millet, sorghum and maize to neighboring countries. In 1998/99, Mali harvested a record 2.5 million metric tons (MT) of cereals, which is sufficient to meet domestic consumption needs. All of the regions in Mali recorded above-average production except for Kayes in the east of the country (see map above) . In its March 1999 Vulnerability Assessment report, FEWS determined "food security conditions in Mali to be among the best in the past 10 years." Further, they stated that "for the first time in nearly 10 years, no emergency food distribution will be necessary in Mali".

On the regional level, the northern regions of Gao, Kidal and Tombouctou are areas of structural agricultural deficit. These areas consistently produce less food than they consume. In addition, the northern parts of Kayes and Mopti regions have also tended toward a structural deficit. These five regions had a combined average annual deficit of over 200,000 MT of cereals between 1994 and 1998. In the 1997/98 agricultural season, these five regions, which contain 41% of Mali's population, accounted for a meager 23% of the total production of cereals in the country. Consistent with this trend, despite the record harvest on the national level, approximately 400,000 pastoralists and farmers in these northern areas are currently moderately food insecure according to FEWS. Their condition, however, is not so dire as to warrant food distribution. While the north has a structural deficit, the southern regions are areas of structural surplus. Koulikoro, Segou and Sikasso had a combined average annual surplus of nearly 400,000 MT of cereals from 1994-98. In the 1997/98 agricultural season, these three regions, which have only 50% of Mali's population, accounted for 77% of the total production of cereals in the country. With relatively high levels of rainfall, these southern regions are aptly called the "breadbasket" of the country. If one can make a generalization at this point with regards to availability of cereals, in a normal year the north of the country (above 14^{o} latitude) produces a deficit and the south (below 14^{o} latitude) produces a surplus.

Food Access Needs

According to USAID's definition of food security, availability—production—is only one of three components. People's access to food is equally as important as their ability to produce it. For the population living in the northern regions, the majority are engaged in pastoralism. They produce livestock. One of the shortcomings of the FEWS analysis and that of most other food security watchdogs is that they tend to concentrate the vast majority of their efforts on monitoring cereal production and consumption, not livestock production and consumption. Milk and meat are nonetheless important food sources for the northern population thus improving their food security even during years of deficit cereals production. In addition, they can sell milk and meat in order to gain access to sufficient cereals via the market. FEWS reports that pasture conditions have been good for the past 3 years across much of Mali and livestock-to-cereal terms of trade have again become favorable for the pastoralists. This reality sheds a new light on the bleak

picture painted above. Although cereal production may be in deficit, it appears that pastoralists should in general have sufficient resources to purchase the cereals that they need in order to be food secure.

Data from the national poverty study conducted in 1993 appear to corroborate the assertion above. In the three northern regions of Tombouctou, Gao and Kidal, only 39% of the population were living below the poverty line as compared with 44% in Sikasso, and 63% in both Segou and Mopti. It is interesting that Mali's most agriculturally (cereals) productive region (Segou) is one of the poorest, while one of the least agriculturally (cereals) productive regions (Gao) is among the richer. This paradox suggests that more emphasis should be given to access and utilization indicators when assessing food security. The data also suggest that some of the southern regions are less food secure (in terms of access) than the northern regions.

Food Utilization Needs

Mali's under-five child mortality rate ranks fifth in the world, 238 per 1,000 live births (DHS). The worst child death rates are found in the northern area of the country in the *Timbouctou*, *Mopti*, *Gao and Kidal* regions. While infant and child mortality rates have improved since 1987, the nutritional situation in Mali has become worse. Between 1987 and 1996, stunting increased by 38%, wasting has more than doubled, and the proportion of children who are underweight has increased by 42%. Seventy percent of infant and child deaths are caused by malaria, measles, ARI, diarrhea, tetanus, and malnutrition. Other diseases that are endemic in Mali include onchocerciasis, sleeping sickness, trachoma, guinea worm, schistosomiasis, and dengue fever. This situation is compounded by the fact that Mali's ratio of health workers to population is among the worst in the world.

Mild to moderate malnutrition contributes to 100 of the 238 deaths per 1,000 live births, and the contribution of malnutrition to under five deaths has risen since 1987. Wasting (acute malnutrition, indicating a weight-for-height Z-score of -2.0 or below) affects 23% of Malian children. Interestingly, the level of wasting does not seem to be related to urban/rural residency, education the mother, source of drinking water, type of toilet, or even socioeconomic levels. Forty-four percent of children 3 to 35 months of age are underweight (global malnutrition), the highest among the sub-Saharan African countries surveyed, and 33% of children 3 to 35 months of age are stunted. The mothers of these children do not fare much better. Sixteen percent of mothers of children under age three in Mali are malnourished. This is the second highest level in sub-Saharan Africa. The highest prevalence of maternal malnutrition is found in the *Koulikoro* region where 21% of mothers are malnourished.

The pattern of growth in Mali is not unusual in comparison with other developing countries. Stunting increases gradually from 0-21m of age, at which time it peaks at about 55%. Wasting rises rapidly from 3-12m of age, at which time it peaks at about 40%. Underweight increases rapidly from 3-14m of age, at which time it peaks at about 55%. The vulnerable period is thus 0-21m of age.

Micronutrient nutrition is poor in Mali. Blinding disorders such as vitamin A deficiency and trachoma handicap more than 10% of inhabitants in certain villages. Deficiencies in vitamin A, iron, and iodine are very common.

There are several common nutritional practices in Mali that contribute to malnutrition. Only 12% of children under four months of age are exclusively breastfed. Sixty-seven percent receive breastmilk and water, at 20% receive breastmilk and other liquids. Early introduction of solids and bottlefeeding are not problems. However, late introduction of solids is problematic: only 31% of children six months of age are fed solid foods in addition to breastmilk. This is the lowest amongst all countries where a DHS study has been conducted.

Some improvements have been made in the management of childhood illnesses over the past decade. The two-week diarrheal prevalence of children under three years of age declined 41% between 1987 (42%) and 1996 (25%). The ORS usage rate is presently at 41%. Feeding during illness, however, is poor. Only 6% of children with rapid or difficult breathing were taken to a medical facility, and only 2% received antibiotics. Fever is common: 33 to 40% of children were found to have had a febrile illness in the past month during the most-recent DHS study. Only 36% of children with fever were given antimalarial drugs when they had a fever.

Reproductive health is a problem in Mali, as well. The fertility rate is very high (6.7) and the contraceptive prevalence rate in 1994 was only 4%. Mali has the highest percentage of women married by age 20 (92%) and a high proportion women who want no more children (17%). This is complicated by the fact that 45% of girls between ages of 15 and 19 already had at least one child, and 9% of the girls in this age group had their first child at age 14 or younger. Female genital mutilation is also a widely accepted practice. Prevalence is estimated at 75%, one of highest levels in the world

Vaccine coverage levels in Mali are among the 10th worst in the world. DPT3/Polio3 coverage is 46%, measles coverage is 51%, BCG coverage is 77%, and TT2 coverage is 45%. The AIDS situation seems to be better in Mali than in other sub-Saharan African countries. HIV seroprevalence is 3.7% in the urban, low-risk population, and 3.4% in the provincial, low-risk population. However, in the urban, high-risk population (STD patients), it was 42% in 1993.

One challenge to providing health care in Mali is its population density. Mali has only 8.6 persons per square kilometer, placing it among sub-Saharan Africa's ten least densely-populated nations. The bulk of the population is in the south. There are only 8 towns with populations over 9,000 in Mali. (Burkina Faso is over four times more population dense than Mali: there are 37 people per square kilometer in Burkina Faso.)

Indicator	Southern Regions					Northern Regions	
	Bamako	Kayes	Koulikoro	Sikasso	Segou	Mopti	Tombouctou / Gao
Stunting, <36m	17%	**34%**	31%	33%	33%	28%	30%
Wasting, to<36m	**28%**	17%	24%	25%	22%	27%	26%
Malnutrition of mothers of children <36m	13%	17%	**21%**	17%	15%	11%	15%
Vitamin A deficiency is worse in					x	x	x
Infant Mortality Rate	73	125		126		**172**	
Under-Five Mortality Rate	165	279		246		**380**	

In terms of regional data, it can be seen in the table above that:

- Kayes, Sikasso, and Segou have the worst problem with chronic malnutrition (stunting);
- Bamako, Mopti, Tombouctou, and Gao have the worst problem with acute malnutrition; and
- Koulikoro has the worst problem with maternal malnutrition.

Visits with Organizations and Agencies

The questions that were used during this exploratory visit are presented in Appendix A. Below is a summary of the information gleaned from the organizations and agencies mentioned above.

World Vision representatives, David Scheiman and Eli Keita, were interviewed by the team on the first day. World Vision is working throughout the country, but its largest project (USAID-funded) is the northern, low population-density regions of Kidal and Gao. Their major activities in the north include agricultural development, water resources development, and education. In other regions of Mali, they are working in some of these same activities with additional interventions to improve immunization status, strengthen health posts, and improve access to medications. When asked about food security, they stated that the north is insecure with regards to availability, while the south is insecure with regards to utilization. They believe that the reason that child malnutrition is so prevalent in Mali is because of a lack of knowledge on the part of mothers, and they stressed the importance of nutrition education as an intervention. Given the small population in the north and relatively large number of NGOs working there, they suggested *Kayes* as a needy, but underserved region. There is a train that goes to *Kayes*, but it takes 12 to 14 hours. Communication services are also very poor. Although they recognize the need, World Vision felt that it was too difficult logistically to conduct a project in *Kayes* at this time. They also said that not many NGOs are working

in *Koulikoro*. They hope to do some work there in the future. World Vision is not using Title II or Child Survival funding to conduct their activities in Mali at this time. However, about 10 years ago, they conducted a child survival project in the north, and conducted another one in the south more recently.

In our meeting with Salif Sow, the National Representative of **FEWS**, we learned that most of the food insecure areas of Mali lie north of the 14th parallel. (Bamako is on the 14th parallel.) FEWS only monitors food security in the "food deficit" zone, i.e., above the 14th parallel. With regard to this focus on the north, Salif stated that the northern population has traditionally sold livestock in order to buy cereal, but that repeated droughts since the 1970s have decimated their herds thereby undercutting their ability to buy grain. The FEWS representative said that he had been surprised by the levels of malnutrition found in the areas below the 14th parallel that were reported in the recent DHS data. He mentioned that Michigan state is partnering with CILSS to conduct a study which will attempt to discover the reasons behind this malnutrition in the south.

USAID's Population, Health, and Nutrition Representative, Katie Panther, said that they were intrigued by the malnutrition levels in the south, as well stating that, "even the wealthier people have malnourished children." Katie indicated that some of the results of the Michigan study had already been released. They found that feeding practices are poor, and people are not using their extra production to feed their children. Ms. Panther also mentioned that once a child is not being breastfed, parents often do not know how much a child is eating since they are eating from a common family bowl and children get the leftovers. Some organizations are looking for ways to promote each child eating from her own separate bowl.

USAID and the GRM's priority region is the north for both political and humanitarian reasons. There is very little in the way of health facilities there. However, USAID has been working with CARE, Africare, CEDPA, another organizations in the south of the country. They promote child survival with children under five years of age, and basic education with children 5 to 14 years of age. USAID recently awarded a bilateral contract to a consortium a PVOs. Ms. Panther said that there are a lot of people competing for local mission funding, and that the large bilateral contract for TA would make local mission funding "very tight."

We also spoke to Dr. Ousmane Haidara who is the "Results Package Manager" for USAID, but who is also known as their nutrition specialist. He said that food prices in Mali make it difficult for even middle-class families to feed their children, and in the cases where they produce a surplus, they often sell it to buy non-food items. There are nutritional knowledge and behavior problems in Mali. He has also seen a lot of parasitic disease, especially hookworm. He noted that 60% of mothers are iron deficient. In terms of vitamin A deficiency, there are not many good, recent studies, but Mali is in the "clinical deficiency area," the more serious deficiency category. Vitamin A is given to children during national vaccination dates, and in health centers throughout the year. Iodine deficiency is seen, and USAID projects often promote iodized salt for pregnant

mothers (which is sometimes not available in the area, however). When they have a severe deficiency, mothers receive injections of Lugol's oil.

USAID has not been very involved in malaria interventions. Dr. Haidara said that the five southern regions of Mali have the most problems with malaria. Prevention of malaria is being done in Mali with children under five years of age and pregnant women (prophylactic dosing). Insecticide-treated bed nets are being used in some parts of Mali to reduce transmission.

We met with Lynn Lederer who is the Field Office Director for **Save the Children**. Current programs of Save the Children include: 1) micro-enterprise development, 2) commercial gardening and garden well construction, 3) construction of village schools, 4) democratic governance, and 5) health. Ms. Lederer felt that the *Kidal* and *Gao* regions are the most underserved and neediest regions of the country. She stated that *Mopti* has the most NGOs and the most resources of any place in the country. She echoed World Vision's assessment that *Kayes* is very underserved and needy. Save the Children has injected a lot of project money into the *Sikasso* region. World Education is doing some work in *Koulikoro*. SCF has a school program where they provide vitamin A, iron, and iodine supplements, and deworming. They have focused their health work on reproductive health, child nutrition, immunizations, malaria, pneumonia, safe motherhood/training of TBAs, postnatal attention, village pharmaceutical banks, and developing health centers so that no village is more than 15 kilometers from a health center. SCF has a child survival project in the south which has been very successful which will end this year. They have done extensive partnering with, and subcontracting to, local NGOs. SCF has technical supervisors who give capacity building training for specific tasks needed to accomplish a project that the partner has been contracted to do. However, they usually fund this capacity building, rather than conducting the trainings themselves.

Africare representatives Bob Wilson, Scott Wittstruck and Avril Armstrong met with us over dinner. Africare is the only Title II Cooperating Sponsor currently operating in Mali. They fund their program with proceeds from monetization of wheat flour conducted in Chad. They have been working in Mali since 1974 and currently implement five projects—four of which are located in Tombouctou region. The major interventions are health, agriculture and water resources. With regards to needy and underserved areas, they stated that the northern regions are needy, but there are not enough people there to justify additional costs. They said that there was a great need for infrastructure development in the north, but again the cost/benefit ratio would be staggering. Africare partners exclusively with local NGOs in Mali and is involved in several capacity-building efforts. When queried about the possibility of monetization in Mali, they expressed doubts from a standpoint of market capacity and possible disincentives to local production.

We met with Caleb Dembele who is the Director of the **Bureau d'Assistance et de Developpement Social (BADS/AGEMPEM)**—the outreach arm of the protestant churches in Mali formed in 1974. He said that the northern regions have the most

needs in terms of food security (e.g. *Mopti*, *Tombouctou*, and *Gao*), as well as *Kayes*. BADS/AGEMPEM has a good relationship with the Red Sea Mission, and their staff members are planning to make a visit to the Kayes area under cover of the Red Sea mission in order to look at possibilities for starting a development project there. BADS has 31 staff members of which 23 are program personnel. Their staff includes seven employees working in administration, three Health Agents, engineers, and development technicians.

Mr. Dembele said that BADS works in four primary areas: agriculture/environment, health, education and water/sanitation. In the area of ag/env, BADS conducts activities in the areas of watershed management, soil conservation, ag credit and ag production. In health, they do TBA training and improve transportation of patients (e.g., for emergencies) in villages that are far from a clinic. Most of their health programs are on a five-year schedule, but they continue to do refresher trainings after that period. They have also been involved in training of Health Agents, vaccination activities, and giving support to health centers (in material or training).

BADS is working on a strategy to develop their funding base. Tear Fund/UK gave BADS funds about 5-6 years ago, and they plan to approach them again for funding soon. However, in the churches, there is a lack of training regarding fund raising, and most churches do not know how to do write a simple proposal or a concept paper. Mr. Dembele mentioned that churches need a base to allow the people to reflect and make decisions for development, not just receive injections of funds. Churches need to be equipped and trained to do their work better. He believes that BADS needs opportunities to work with other organizations to learn new ways of doing things, and information and cultural exchanges to develop their institutional capacity. They need "deeper partnerships" which are not centered on TA for a particular project, but ongoing partnerships that build capacity in many different ways, and that respond to its global vision of development. Mr. Dembele said, "Our doors are open to working with other partners. . . .FHI should open an office in Mali and partner with BADS. The needs are great and many areas are underserved."

We also met with Mr. Gary Braun, Director of the **Gospel Mission Union** in Mali. In terms of holistic development, the GMU has helped the church to set up small FM radio stations where they broadcast local news and community service type messages, including some development education messages. About 40% of their broadcasting is spiritual in nature. Churches have asked the GMU to help them in the area of health and agriculture activities, but the staff members of GMU have thought that they would need an organization to come alongside of them to meet this need. He mentioned that BADS was interested in helping meet those needs. Mr. Braun said that GMU was most interested in partnering with other organizations in the area of media development (especially television).

In addition to our in-country meetings, four important interviews were conducted in the US either before or after the exploratory trip to Mali. The first was with Joe Gettier, West Africa Program Officer at USAID/Food for Peace. In that interview, we discussed

Title II programming in Mali and Burkina and Joe's perception of potential growth. According to him, Title II growth in the region will be difficult due to factors such as limited markets for monetization and Mali Mission opposition to food aid. He said it would be difficult to justify monetization in Mali, but he would not rule it out. Of the two countries, he was more positive about the possibility of an additional Title II program in Burkina Faso than he was about Mali. His final point, which he emphasized, was that a distribution component should be part of any Title II DAP submitted to FFP.

Subsequent to this interview, Dave Evans met with Nancy Estes, West Africa FFP Officer who was in Washington on USAID business. Nancy shed some new light on the possibilities of additional Title II programming in Mali. In the interview, she also stated that the USAID Mission in Mali is strategically focusing on the north of the country with an expected $200 million to flow in that direction over the next five years. She also confirmed Joe's statement that the Mission has traditionally been averse to food aid (primarily distribution). She added, however, that with regards to monetization, there are more hurdles in FFP Washington than there are in the Mali Mission at the moment. The recent conference on monetization held in Bamako in April 1999 revealed that it would be difficult to find an adequate market for any commodity which would meet the criteria of the Bellmon. This same sentiment has been echoed by others, including OICI which did quite a bit of market research in Mali. Currently, there are approximately 9-10,000 MT of wheat being imported from Canada (CIDA) and monetized in Bamako. Nancy stated that maize may be a possibility. Several maize traders approached her after the April conference and offered to purchase Title II maize. Vegetable oil may also be a possibility as well as whole milk. What seems to be evident in all this is that further market research is needed in order to determine the feasibility of a monetization component. Nancy rightly stated that markets in West Africa are fragile and there is a need for PVOs to collaborate together in looking at potential markets. Her concluding statement was that the door is not closed on Title II growth in either Mali or Burkina, but that in all honesty, it would be difficult to make it work. This statement is in line with Joe Gettier's earlier sentiments.

Two important interviews were conducted with representatives from OICI and CRS. In interviews with Ellen Wertheimer and David Benafel, they discussed recent efforts by OICI to research the feasibility of beginning programming in Mali. Several exploratory trips and data gathering exercises have been conducted to date. They are interested in the possibility of Title II programming there, but are not overly optimist about the prospects, given the research data on lack of markets for monetization and Mission opposition to food aid. The second important interview was with Jenny Aker, Food Security and Monetization Advisor in CRS. Jenny stated that CRS currently implements a project in Mopti that is managed out of CRS's Burkina office due the nature of the project (education). Mali as a country, however, comes under the programmatic cover of CRS' office in Senegal. Jenny stated that Mali is increasingly being focused on by CRS as an area of growth. She mentioned some possible ideas for a DAP submission focusing on sesame seeds in the south of Mali. She reiterated CRS' interest in partnering with FHI and OICI to jointly explore Title II possibilities in Mali, including the joint conduct of a food security needs assessment.

Conclusions and Recommendations Concerning a Potential FHI/Other Partner(s) Title II Food Security Program in Mali

Mali has had a national food surplus over the past three years. Despite that fact, food utilization is poor in Mali and has been on the decline over the past decade. While the greatest problems with food availability are in the north of Mali, there are relatively few people living in those regions (only 10% of the total population) and there is already a significant amount of NGOs and donor funding at work there. In addition, many of the agency representatives with whom we met felt that food production gains in these northern regions would be marginal at best. Sustainable improvement in food utilization, given the causes of malnutrition in Mali, would probably be severely hampered in the north by the poor health infrastructure there. Given that reality, the greatest added value that FHI could bring to Mali is probably in the area of improving food utilization and possibly access in the south of the country (the regions of *Kayes*, *Koulikoro*, *Sikasso*, and *Segou*) where the highest levels of stunting, wasting and poverty are found despite higher food production. Given the small amount of data that we presently have, the causes of malnutrition in southern Mali appear to be predominantly *behavioral*, which generally respond very well to health interventions such as growth monitoring/promotion, the Hearth nutritional rehabilitation model, health education to improve feeding during illness, promotion of ORS, and other similar interventions. FHI's should explore the possibility of partnering with local organizations such as protestant churches to engage in health promotion.

It is important to also discuss the likelihood of obtaining Title II funding to engage in any proposed activities. Although the picture painted by Joe Gettier and Nancy Estes is by no means rosy, they both affirmed that the door remains open for Title II growth in Mali. Given this possibility, I recommend that we go forward to the next step of assessing food security needs in Mali.

It was stated in the introduction that this exploratory trip was the first stage of a two-part food security needs assessment. In order to gain a better understanding of the location of the neediest and most underserved regions, it is important to conduct a more intensive exercise which would gather qualitative data at the micro level. Based on the discussion above, the selection of that region for a micro-level assessment should flow from the following logic:

- The northern regions of Gao, Tombouctou, Kidal and Mopti *should not be considered* due to the small population, high cost, relatively high food access, high number of NGOs, and substantial amounts of donor aid already at work there;
- The region of Sikasso *should not be considered* due to relatively high food availability, average food access, and good coverage by Save the Children in health and nutrition interventions (food utilization);
- The region of Kayes *should be considered* due to relatively low food availability and low food utilization. However, a large determinant in our ability to work there

appears to be the poor infrastructure and communications. These areas alone might preclude working there, but the region should not be discounted until those areas are thoroughly researched;

- The region of Koulikoro *should be strongly considered* given its low level of food utilization (high levels of stunting and wasting, and the highest level of maternal malnutrition), the relative small number of NGOs working in the region but strong presence of BADS, and its accessibility (compared to Kayes),
- The region of Segou *should be strongly considered* given its low level of food utilization (high levels of stunting and wasting, and low level of Vitamin A), low food access (63% of population below the poverty line) and its accessibility (compared to Kayes).

FHI should continue to explore the possibility of partnering with CRS and OICI in Mali. This partnership could potentially be value-added in that it would build on the strengths of each organization. In order to more fully explore this possibility, the second stage of the food assessment should be planned jointly with CRS and OICI as well as potential local partners. We recommend the following next steps:

1. Review of this exploratory trip report by CRS and OICI;
2. CRS and OICI send their comments on the report to FHI;
3. Decide corporately whether or not to go ahead with a joint micro-level needs assessment;
4. If there is agreement to engage in a collaborative effort, agree together on the region(s) in which to conduct the assessment. FHI would also like input at this stage from potential local partners such as BADS or others;
5. Jointly write a scope of work for the assessment (including participation of local NGOs);
6. Conduct the assessment and write the report.

Comparing several food security indicators for three food insecure countries where FHI presently works, and four other food insecure countries where FHI has considered working, we see Mali and Burkina Faso fare the poorest in terms of food insecurity indicators.

Indicator	Bolivia	Kenya	Mozam-bique	Haiti	Uganda	Burkina	Mali	Sub-Saharah
Under Five Mortality (per 1,000)	102	90	214	135	141	158	220	170
RANK (1 is Worst; 8 is Best)	6	7	2	5	4	3	1	
Maternal Mortality Rate (per 100,000)	650	650	1500	1,000	1200	930	1200	980
RANK	6	6	1	4	2	5	2	
Under Five Stunted, Moderate & Severe	29%	34%	55%	32%	38%	29%	49%	42%
RANK	6	4	1	5	3	6	2	
Under Five Underweight, Mod./Severe	8%	23%	27%	28%	26%	30%	27%	30%
RANK	7	6	3	2	5	1	3	
Under Five Wasted, Mod/Severe	1%	8%	5%	8%	5%	13%	11%	8%
RANK	6	2	4	3	4	1	2	
Exclusively breastfed, 0-3m	53%	17%	0%[I]	3%	70%	12%	42%	32%
RANK	6	4	1	2	7	3	5	
% of infants with low birthweight	12%	16%	20%	15%	-[II]	21%	17%	16%
RANK	7	4	2	6	4	1	3	
Per capita Purchasing Power Parity (PPP)	2066	1176	898	1069	654	734	600	-
	7	6	4	5	2	3	1	
Per-capita calories (not ranked)	84%	89%	77%	89%	93%	-		-
Households w/access to potable H20	63%	53%	63%	37%	46%	42%	66%	49%
RANK	5	4	5	1	3	2	6	
Households with access to adequate sanitation	58%	77%	54%	25%	57%	37%	6%	44%
RANK	6	7	4	2	5	3	1	
ORT usage rate	41%	76%	83%	31%	49%	100%	29%	81%
RANK	3	5	6	2	4	7	1	
DTP3 vaccine coverage, children 12-23m	76%	46%	60%	34%	68%	48%	29%	52%
RANK	7	3	5	2	6	4	1	
Total Score (Lower = more needy)	**72**	**58**	**43**	**39**	**49**	**39**	**28**	
No. Of Indicators for Rank 1	**0**	**0**	**3**	**1**	**0**	**3**	**5**	
No. Of Indicators for Rank 2	**0**	**1**	**2**	**5**	**2**	**1**	**3**	
No. Of Indicators for Rank 1 & 2	**0**	**1**	**5**	**6**	**2**	**4**	**8**	

Colors indicate relative performance of each country in food utilization indicators. (Red = Worst; Yellow = Average; Green = Best)

Appendix A:

Questions for FHI's Mali Exploratory Trip (6/99)

We will have one-hour meetings that focus on:

- the **areas of high food insecurity** in Mali/Burkina (where they are, and pros and cons of working there);
- **objectives and operations** of each organization;
- each organization's **perspective on geographic and/or programmatic areas that are needy**, but not currently being serviced by other NGOs; and
- each organization's **perspective on PL 480 Title II programming** in Mali/Burkina.

Sample General Questions:

1. Explain your organization's history, objectives and current operations or programs in Mali/Burkina.
2. Which regions of Mali/Burkina do you believe have the highest levels of food insecurity? How difficult is it to work in those area? What things make it difficult to work in those (food insecure) areas?
3. What is your view of food aid? For distribution? Monetization?
4. What has been your experience with PL 480 Title II programming here in Mali/Burkina? Has it been easy to work with the FFP officer here?
5. Give us your perspective on geographic and/or programmatic areas that are needy, but not currently being serviced by other NGOs.
6. How possible is it to partner with churches, local NGOs and other groups to meet needs?
7. Does your strategy include partnering with other NGOs, churches or other groups and if so, what types of partnerships are you most interested in?

Sample Food Availability Questions:

1. Where are the primary food deficit regions of the country? Food surplus regions?
2. What are the major constraints to increased yields and production?
3. What are the comparative advantages of the country or particular region with regards to agricultural production?
4. What opportunities exist for working on agricultural sector improvement?
5. What are the major opportunities and barriers for increasing agricultural marketing?

Sample Food Utilization Questions:

1. Are Health Promoters or other paraprofessionals used in the government's health plan?
2. What are the priority interventions and health problems in the country (in rank order)?
3. How has the MOH been involved in your Title II health projects? In what ways have PVOs and NGOs collaborated with the MOH in Mali/Burkina to carry out health projects?
4. What studies have you found or has your organization conducted concerning mothers' health knowledge or practices? Are there any studies on coverage levels (aside from the DHS)?
5. Which regions of the country have the worst problems with stunting? Wasting?
6. In your opinion, what are the chief causes of malnutrition in the country?
7. What have been the most successful projects in terms of measurable improvement of nutritional status of children?

8. In terms of immunizations and vitamin A supplementation, what are the geographical areas of the country that have the lowest coverage levels? How has your organization been involved with immunizations or vitamin A?
9. Is promotion of iodized salt being done in some regions of the country? Supplementation with Lugol's Solution (iodine in oil)? Has your organization been involved in lessening the problem with iodine deficiency?
10. Which regions of the country have the worst problem with malaria morbidity and mortality? How has your organization been involved with malaria programs? Do you see very much *plasmodium falciparum* (malaria) in the country?
11. What measures have been undertaken in Mali/Burkina to lower the transmission of malaria? Are ITBNs used?
12. Which regions of the country have the worst problems with diarrhea prevalence and treatment (i.e., low ORS usage)? Has your organization been involved in prevention or management of diarrhea?
13. Has much been done in training health workers in standardized case management of pneumonia? Has your organization been involved with that?
14. What programs are in place in Mali/Burkina to reduce maternal and newborn mortality? Has your organization been involved in work in that area? Which regions seem to have the worse problems with maternal and newborn mortality?
15. What is being done in Mali/Burkina in terms of family planning? Has your organization been involved in family planning? How?
16. Which are the principle FP methods used in Mali/Burkina? What barriers exist to women getting FP services?
17. What is the latest estimate of seroprevalence of HIV in the country? Are there good estimates? What has been done in Mali/Burkina in terms of education on -- and prevention of -- HIV?
18. **Do you think that FHI could play a role in Mali/Burkina in improving health and nutrition of children and mothers?**

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[i] Based on FHI's KPC survey in two provinces. No national data available from UNICEF.
[ii] Used Sub-Saharan region average for ranking.